

Exploration of the Influential Factors of the Financing Capacity of Small  
and Medium-sized Enterprises in Jiangsu Province of China

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## **Candidate Declaration**

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I certify that the dissertation entitled:Exploration of the Influential Factors of the Financing Capacity of Small and Medium-sized Enterprises in Jiangsu Province of China

submitted for the degree of: MSc in Accounting and Finance Management is the result of the my own work and that where reference is made to the work of others, due acknowledgment is given.

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## **Abstract**

This positivistic study is to empirically explore the influential factors of the internal and external financing capacity of SMEs in Jiangsu Province of China. Through the comparison of related Western literatures and Chinese literatures, it could be detected that the related studies in China are mainly based on the Western studies and the systematic research to comprehensively explore into the influential factors of financing capacity of SMEs is limited, which make it necessary to have comprehensive analysis in China. As a result, this research is to empirically probe into the financial data of companies from Jiangsu Province of China listed on the SME board of China from 2016 to 2018 with the software of SPSS. Through descriptive statistical analysis, correlation analysis and regression analysis, the findings could be summed up as on three aspects.

First of all, in the aspect of the influential factors of external financing capacity of SMEs in Jiangsu Province of China, the factor of enterprise scale is detected to be able to exercise significant and positive influence on the external financing capacity of SMEs in Jiangsu Province of China. Secondly, in the aspect of the influential factors of internal financing capacity of SMEs in Jiangsu Province of China, it is demonstrated that the factor of profitability could have significant and positive impact on the debt level, which is divided from the pecking order theory of financing. But the factors of internal accumulation level and risk control capacity are verified to be influential factors of internal financing capacity of the sample companies. Finally, In the macro level, it is first suggested that a unique financial service system for SMEs could be set up. Bank loans are the main external financing channel for SMEs. Also, other financial institutions funded by private capital could also be supported by the government to offer more financing channels for SMEs. In addition, innovative equity transaction markets could be developed to offer more equity financing opportunities for SMEs. Thus, the enterprise scale could be expanded and realize diversified and sustainable development.





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## **List of Abbreviations**

SMEs – Small and Medium-sized Enterprises

H - Hypothesis

ES - Enterprise scale

BR - Bank-Enterprise Relationship

GA - Growth Ability

CMC - Corporate Mortgage Capacity

P - Profitability

IAL - Internal Accumulation Level

RCC - Risk Control Capacity

ALR - Asset-Liability Ratio

VIF - Variance Inflation Factor

ANOVA - Analysis of Variance

SPSS - Statistic Package For Social Science

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## **Chapter 1 Introduction**

### **1.1 Background of Research**

Small and medium-sized enterprises (SMEs) occupy an irreplaceable position in the global development of economy. The effects of SMEs could be embodied in the three major aspects. First, SMEs could add to market energy. As estimated by Hillary (2017), in most nations or regions, SMEs occupy over 95% of the total enterprises and in the UK and Korea, the ratio even reaches 99.9%, which makes it hard for large enterprises to manipulate the market and is beneficial for fair competition. Second, SMEs could generate many jobs. As estimated by Antony, Vinodh & Gijo (2017), in most nations or regions, about 50% of the jobs are offered by SMEs. For example, 53% of jobs in the US, 78% of jobs in Germany and 87% of jobs in Korea come from SMEs (Wynarczyk et al, 2016). Third, SMEs could create huge social wealth. As estimated by Jansson et al (2017), 75% of the GDP of Germany and 39% of that of the US are generated by SMEs. Therefore, it could be seen that the development of SMEs is of great significance to the global economic development.

However, the development of SMEs across the world has been confronted with a lot of bottlenecks. Especially, the problems of lack of funding and financing difficulty have severely blocked the healthy growth of SMEs (Mittal et al, 2018). Under that circumstance, how to enhance the financing ability of SMEs to further help settle the financing problem of SMEs has become a pressing duty. As defined by Schmidt & Hoffmann (2019), financing capacity refers to the scale of the funds which could be raised by an enterprise under certain economic and financial conditions. That capacity is very important for enterprises, especially the external financing capacity for SMEs. Hence, in this research, the author intends to start from the perspective of the influential factors of the external financing capacity to provide rational advice for the difficulty of SMEs in financing.

In theory, the current research about the financing issue of SMEs has been rich and the corresponding research perspectives have been diversified, as argued by Yoshino & Taghizadeh-Hesary (2019). Through the overview of the existing associated research, the focus of the related research about the financing capacity of SMEs mainly consists in the origins of the inadequate financing capabilities of SMEs as well as the measures to cope with the inadequate financing capabilities (Schmidt & Hoffmann, 2019). However, the corresponding empirical research about the influential factors of the financing capacity of SMEs is limited (Xiang et al, 2019). Hence, it would be of theoretical significance to empirically dig deep into the influential factors of the financing capacity of SMEs.

The whole research is designed to be set in Jiangsu Province, China. China is one of the countries with a long history in East Asia. As a developing nation with the largest population across the world, China is the second largest economy and has constantly contributed to the economic development of the globe. Jiangsu is a province in the eastern coastal China with the top provincial-level regional economic synthesized competitiveness. The reasons for the selection of SMEs in the Jiangsu as the research samples are as follows. First of all, ever since the end of 1980s, SMEs in China have experienced unprecedented development and growth and have been an important pillar in the national development of society and economy. As estimated by Luo, Zhang & Zhou (2018), SMEs in China have taken up over 90% of all the companies in China and they created more than 50% of the GDP of the nation, which indicates the significant role of SMEs in the Chinese market. Second, as one of the big economical provinces of China, the development of Jiangsu of China is a microcosm. Altogether, there are one hundred and six companies from Jiangsu Province of China listed on the SME board, which take up about 10% of all the companies listed on the SME board (Jiang, Dong & Du, 2018). Hence, to aim at Jiangsu Province in China for research is of representativeness. Third, in theory, in China, the existing empirical literatures relating to the influential factors of the financing capacity of Chinese SMEs are rather limited, which makes the corresponding

research with theoretical significance (Xu, Zhao & Yang, 2019). Fourth, as an overseas student from the mainland China, the author attempts to apply what have been learnt abroad in the home nation. In consequence, the author aims to take companies listed in the SME board of China as the examples to study the influential factors of the corporate financing capacity and to propose suggestions as to how those companies in China could improve their financing capacity to cope with the competitive environment.

## **1.2 Aim and Objectives of the Research**

Given the background of research discussed above, this research is to empirically study the influential factors of the financing capacity of SMEs in Jiangsu Province of China. Given that corporate financing could be separated into internal financing and external financing, the objectives of this research are put forward as follows:

- To explore into the influential factors of the external financing capacity of SMEs in Jiangsu Province of China;
- To explore into the influential factors of the internal financing capacity of SMEs in Jiangsu Province of China;
- To make suggestions as to how to enhance the financing capacity of SMEs in Jiangsu Province of China.

## **1.3 Research Methodology**

In this positivistic research, the author is to rely on the existing studies to put forward the hypotheses and to collect empirical data from practice to verify the hypotheses to generate findings and theories which could be referenced in the future related studies. Hence, that research process is consistent with the general design of positivistic research. In this positivistic research, quantitative research method is to be concentrated on. The quantitative research method of statistical analysis is chiefly applied in which the SME listed enterprises in Jiangsu Province are targeted at and secondary financial data from those enterprises are collected for descriptive statistical analysis, correlation analysis and



regression analysis. Currently, there are about one hundred and ten SME listed enterprises in Jiangsu, China. Those companies in the financial industry, under special treatment or with incomplete data are to be eliminated. After the elimination of unqualified samples, qualified samples would be targeted at for the statistical analysis via the statistical analysis software of SPSS. Through the statistical analysis, the influential factors of the financing capacity of SMEs in Jiangsu Province of China could be found out, which could be taken as reference for the proposal of the suggestions for practice.

#### **1.4 Outline of Subsequent Chapters**

Following the first chapter for the discussion of the background and aim of the research, the second chapter is to present the review of the existing literatures. The literature review covers the definition of the concepts of SMEs and corporate financing, the theories about corporate financing, and the existing studies about the influential factors of SME financing. Through the literature review, the gaps in the existing literatures could be figured out, which would be beneficial for the establishment of a solid theoretical basis. Also, the hypotheses of the research would be formed to be examined in the statistical analysis. Subsequently, in the following chapter, how the research hypotheses would be testified and what methods would be used would be pointed out and illustrated in details. To be specific, the research paradigm, the research indicators design, the research model design, the collection of secondary data and the methods for statistical analysis are discussed in depth one by one. Then, in the following chapter, the empirical analytical findings are presented and elaborated in details. Through the comparison of the findings in this research and those achieved in the previous research. Finally, founded on the empirical analytical results, conclusions and advice for practice are made in line with the conclusions. In addition, the potential limitations in the research would also be pointed out and suggestions for improvement would also be made.

## **Chapter 2 Literature Review**

### **2.1 Introduction**

In this chapter, first of all, the definitions of the related concepts including SMEs and corporate financing capacity of SMEs are made. Then, the SME financing structure theories are discussed to theoretically explain the potential influential factors of corporate financing capacity of SMEs. Subsequently, the existing studies made by researchers in Western nations and in China are discussed and compared to point out the gaps in the existing Chinese studies. Finally, based on the gaps detected and the literatures reviewed, the hypotheses to be examined are designed and proposed.

### **2.2 Definition of Related Concepts**

The related concepts involved in this research include SMEs, and corporate financing capacity of SMEs. In this section, the definitions of those concepts are made as below.

#### **2.2.1 SMEs**

SMEs are the concept relative to large enterprises and they are in small quantity of employees, small asset size and small operating income in contrast with large enterprises in the same industry (Hilary, 2017). The concept of SMEs in different nations is different and the basis of classification is determined by the economic development stages of different nations and the characteristics of different industries (Wynarczyk et al, 2016). Till now, the generally applied basis of classification is set from the perspective of quality and the perspective of quantity. From the perspective of quality, the indicators include the economic form, financing ways and market position of enterprises; while from the angle of quantity, the indicators include the quantity of corporate employees, gross income from sales, and gross value of assets (Trianni, Cagno & Farné, 2016). In most of nations, quantitative indicators are mainly preferred, since quantitative indicators are more intuitive and measurable compared with qualitative indicators.

In China, with the increasing development of social economy, the classification standards of SMEs have been modified and supplemented for several times in order to adapt to the industrialization process of the nation. At the present, as pointed out by Xiang et al (2019), the latest standards of SMEs in China are released by multiple departments such as Ministry of Industry and Information Technology and National Development and Reform Commission of the People's Republic of China in 2011 and they are as presented in the graph below. In this research, considering the accessibility of the sample data, those listed in the SME board of China are mainly targeted at and those companies are in line with the following standards.

Industry	Indicator	Large	Medium	Small	Micro
Agriculture, animal husbandry and fishery industry	Operating income (ten thousand yuan)	$\geq 20000$	$20000 > x \geq 500$	$500 > x \geq 50$	$< 50$
Industrial engineering	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 40000$	$40000 > x \geq 2000$	$2000 > x \geq 300$	$< 300$
Construction industry	Operating income (ten thousand yuan)	$\geq 80000$	$80000 > x \geq 6000$	$6000 > x \geq 300$	$< 300$
	Total assets (ten thousand yuan)	$\geq 80000$	$80000 > x \geq 5000$	$5000 > x \geq 300$	$< 300$
Wholesale trade industry	Employee (number of people)	$\geq 200$	$200 > x \geq 20$	$20 > x \geq 5$	$< 5$
	Operating income (ten thousand yuan)	$\geq 40000$	$40000 > x \geq 5000$	$5000 > x \geq 1000$	$< 1000$
Retail industry	Employee (number of people)	$\geq 300$	$300 > x \geq 50$	$50 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 20000$	$20000 > x \geq 500$	$500 > x \geq 100$	$< 100$
Transportation industry	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 30000$	$30000 > x \geq 3000$	$3000 > x \geq 200$	$< 200$
Warehousing industry	Employee (number of people)	$\geq 200$	$200 > x \geq 100$	$100 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 30000$	$30000 > x \geq 1000$	$1000 > x \geq 200$	$< 200$
Post industry	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 30000$	$30000 > x \geq 2000$	$2000 > x \geq 100$	$< 100$
Hotel industry	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 2000$	$2000 > x \geq 100$	$< 100$
	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
Catering industry	Operating income (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 2000$	$2000 > x \geq 100$	$< 100$
Information transmission industry	Employee (number of people)	$\geq 20000$	$2000 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 100000$	$100000 > x \geq 1000$	$1000 > x \geq 100$	$< 100$
Software and information service industry	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 1000$	$1000 > x \geq 50$	$< 50$
Real estate industry	Operating income (ten thousand yuan)	$\geq 200000$	$200000 > x \geq 1000$	$1000 > x \geq 100$	$< 100$
	Total assets (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 5000$	$5000 > x \geq 2000$	$< 2000$
Property management industry	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 100$	$< 100$
	Operating income (ten thousand yuan)	$\geq 5000$	$5000 > x \geq 1000$	$1000 > x \geq 500$	$< 500$
Leasing and business service industry	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Total assets (ten thousand yuan)	$\geq 120000$	$120000 > x \geq 8000$	$8000 > x \geq 100$	$< 100$
Other industries	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$

**Graph 2.1 Classification Standards of SMEs in China**

(Source: Zhou, 2016)

### **2.2.3 Corporate Financing Capacity of SMEs**

Capacity is the objective conditions required for the fulfillment of certain activities and corporate capacity could be taken as the basis for enterprises to improve value and to create competitive advantages (Bargeron, Denis & Lehn, 2018). Corporate financing capacity is just an important component of corporate capacity. Till now, the definition about the concept of corporate financing capacity is in relatively perfect agreement. As pointed out by researchers such as Klinac, Pesa & Bolfek (2019) and de Sousa (2019), financing capacity could be regarded as the capacity of enterprises to obtain sustained and steady funds through specific ways of financing in line with their own development strategies. That is to say, financing capacity could be regarded as the capabilities of enterprises to obtain adequate funds for the smooth operation and development of enterprises via financing activities.

On the basis of the widely accepted definition of corporate financing capacity, still some researchers start from the perspective of financing structure and financing time limit to have further classification of corporate financing capacity, as presented in Table 3.1 below. From the table below, it could be detected that in the angle of financing structure, corporate financing capacity could be separated into internal financing capacity and external financing capacity; in the angle of financing time limit, corporate financing capacity could be divided into short-term financing capacity and long-term financing capacity.

**Table 3.1 Classification of Corporate Financing Capacity**

<b>Research Perspective</b>	<b>Classification</b>	<b>Main Content</b>	<b>Researchers</b>
Financing structure	External financing capacity	The capacity of enterprises to obtain funds from the outside via the means of bonds, stocks, etc.	Oji, Soumonni & Ojah (2016); de Véricourt & Gromb (2019)
	Internal financing capacity	The capacity of enterprises to circulate funds inside the enterprises via self-organization and the internal financing is the way of financing which is preferred by enterprises.	Legesse & Guo (2020)
Financing time limit	Short-term financing capacity	The capacity to satisfy the short-term demand for capitals of enterprises.	Gayraud, Lemoine & Massonnet (2019); Begenau & Salomao (2019)
	Long-term financing capacity	The capacity to satisfy corporate needs for capital expansion and corporate operation and management, which could reflect the degree of corporate property	Ning & Sobel (2018)

		security and stability.	
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From the perspective of the author, the financing of SMEs and that of big businesses are different to some extent. Relatively speaking, the financing of big businesses is mainly individual behaviors and the direct loans and financing via credit bureau are preferred. However, the financing of SMEs is mainly group behaviors and the development process involves multiple problems such as employment and social stability. Also, the financing of SMEs calls for the policy support of the government and the financing ways of SMEs are more likely to be affected by the local financing institutions and financing guarantee companies. Hence, the author thinks that the financing capacity of SMEs could reflect the degree of conjunction of the resources of SMEs and the external financing environment and it is the important capacity for enterprises to raise funds and maintain the smooth operation of the companies; also, it is also associated with various aspects of SMEs, such as the growth of SMEs and the value of SMEs. In this research, those influential factors are studied in depth.

In addition, it has to be noted that in this research, external financing capacity is to be focused on. For SMEs, due to their relatively poor operating situation within the enterprises, the internal financing capacity of SMEs is relatively poor and the key of survival for SMEs concentrates on the external financial capacity.

### **2.3 Financing Structure Theories of SMEs**

According to the differences in the research about corporate financing, the theories about SME financing could be categorized into SME financing structure theories and SME

financing demand and supply theory. SME financing structure theories are about how enterprises could collect capitals from different financing channels according to the actual situation of those enterprises (De Rassenfosse & Fischer, 2016). In the SME financing structure theories, the influential factors of SME financing capacity could be studied and the influential factors for the choice of financing channels and decisions of enterprises are researched (Rahaman, 2016). Therefore, SME financing structure theories are the theoretical foundation of the research about the influential factors of SME financing capacity. Hence, in this section, the MM theory, the pecking order theory, the agency cost theory, and the balance theory are mainly studied as below.

➤ MM theory

The MM theory could be taken as the foundation of the modern capital structure theory and it is first proposed by Modigliani & Miller (1958). In 1963, Modigliani & Miller (1963) amended that theory. According to the initial MM theory, with certain reasonable assumptions, corporate financing structure is not correlated with corporate value. That is to say, for SMEs, debt financing and equity financing are the same to each other (Modigliani & Miller, 1958). However, according to the amended MM theory in which corporate income tax is considered, corporate value and financing cost are in proportional relation with debt leverage and when the debt ratio reaches 100%, the corporate value is the largest and the financing cost is the lowest.

➤ Balance theory

However, after the proposal of the MM theory, the applicability of that theory in the real market has been greatly questioned. As a result, further efforts have been made to improve the MM theory and the balance theory is born at the right moment. According to researchers such as Robichek & Van Horne (1967), the maximization of corporate value could not be realized via the total reliance on debt financing and only when the marginal income equates with the sum of the marginal agency cost and the marginal financial crisis cost brought about by the increase of the debt level, the optimal capital structure could be achieved.



➤ Pecking order theory

The pecking order theory that generated by Myers (1984) could be taken as the capital structure theory which first introduces the information asymmetry theory into the research of capital structure. The information asymmetry theory is used as the basis and the transaction cost is considered. On the grounds of the pecking order theory, the first choice for enterprises would be the internal financing, followed by external financing; and debt financing could be taken as the primary choice of external financing (Myers, 1984).

➤ Agency cost theory

That theory formed by Meckling & Jensen (1976) also takes the information asymmetry theory as the basis and it studies the impact of corporate financing decisions on corporate value in the aspect of agency cost. On the grounds of Meckling & Jensen (1976), the best financing cost would not be completely equity financing or debt financing; rather, it should be the combination of debt financing and equity financing.

## **2.4 Review of Existing Literatures Relating to the Influential Factors of the Financing Capacity of SMEs**

The financing problem has long been a serious constraint to the development of SMEs across the world. Relatively speaking, the capitalistic economy in Western nations developed earlier with rich research targeting at the financing problem of SMEs, while due to the short history of the Chinese capital market, the related research is relatively limited. Considering the Chinese background in this study, both the related Western literatures and the Chinese literatures are to be reviewed to compare the development of the literatures in different contexts and to detect the gaps in Chinese literatures.

### **2.4.1 Related Western Literatures**

The research about the problems of SMEs in financing could be dated up to 1930s when Macmillan (1931) proposes the famous theory of Macmillan Gap in *Report of Committee*

*on Finance and Industry*. According to Macmillan (1931), in the UK, there is a problem that the suppliers of funds are reluctant to supply capitals on the terms offered by SMEs. That means that the development process of SMEs is confronted with financing gap, which is named as Macmillan gap. Later, on the basis of the opinions of Macmillan (1931), the problem of SMEs in financing has been turned into one of the major research directions of researchers. After the overview of the existing Western studies, the factors are detected to be taken as the major influential factors of the financing of SMEs as below.

➤ Information asymmetry and SME financing

Information asymmetry is one of the recognized major influential factors of the financing problem of SMEs across the globe. It is Stiglitz & Weiss (1981) who first start from the perspective of information structure to comprehensively dig deep into the phenomenon of credit rationing. As elaborated by Stiglitz & Weiss (1981), the phenomenon of credit rationing is that in the credit market, the problem of information asymmetry could not only result in moral hazard, but would also cause the adverse selection problem, which would result in relatively large credit risk for banks. Because of the relatively low level of transparency of the financial information of SMEs, institutions like banks fail to have effective risk judgment over the financing capacity of SMEs. As a consequence, those institutions like banks are inclined to select medium and large enterprises which are sound in management system and financial information, rather than those SMEs, even though those SMEs may have reasonable need for loans (Stiglitz & Weiss, 1981).

That finding of Stiglitz & Weiss (1981) has been well supported by researchers such as Hachimi, Abdelouhab & Hamid (2017). As pointed out by Hachimi, Abdelouhab & Hamid (2017), the information asymmetry between banks and SMEs could be ascribed to the unique features of SMEs and the information asymmetry would increase the sensitivity of banks to the financing risks of SMEs, which would result in the reduction of the loan limit of banks to SMEs. In addition, Yoshino & Taghizadeh-Hesary (2019) also

verify the natural information asymmetry between SMEs and banks.

➤ Bank scale and SME financing

Bank scale has also been detected as an influential factor for the difficulties of SMEs in financing. Relatively speaking, big financial institutions like big banks have an advantage through the utilization of the lending technology depending on hard information; however, small financial institutions could better utilize relational lending technology depending on soft information. Berger & Udell (2002) hold that in the angle of banks, large enterprise information that could be easily transferred and quantized and which is disclosed normatively and completely is hard information; while SME information with non-standard and vague disclosure is called as the soft information; in the aspect of the relational financing, small banks could better process soft information compared with big banks and small banks are more accessible for SMEs to get loans. Similarly, Love, Pería & Singh (2016) argue that small and medium-sized financial institutions are with outstanding comparative advantages in the provision of micro-credit to SMEs. Hence, as concluded by Love, Pería & Singh (2016), the establishment and growth of small and medium-sized financial institutions could help SMEs to solve financing problems.

➤ Other influential factors and SME financing

Credit environment is also studied as an influential factor of SME financing. Jappelli, Pagano & Bianco (2005) persist that as the third-party organization, the medium institution of credit could provide a platform for corporate financial information sharing and transaction. As further found out by Jappelli, Pagano & Bianco (2005), the level of information shared by financial institutions influences the accessibility of credit and loan. Furthermore, the empirical research of Bremus & Neugebauer (2018) illustrates that if there is no medium institution of credit, the financing cost and the default probability would significantly rise; and the quantity and the scale of medium institutions of credit are closely related with the volume of credit and loan of a nation.

In addition, corporate scale is also detected as an influential factor of SME financing decision in academia. As verified by Drover et al (2017), corporate scale and the share of short-term loans are with inverse correlation relationship; so as the relationship between corporate scale and the long-term loans. As further explained by Drover et al (2017), that is related with that SMEs are in lack of transparent information; that has forced to accept higher financing cost, to select internal financing or rely on more short-term loans.

#### **2.4.2 Related Chinese Literatures**

Ever since 1980s, especially after the reform and opening up, the position of SMEs in the Chinese economic and social growth has been more and more outstanding (Hu, 2017). Also, the growth of SMEs has attracted increasing attention in China. However, the shortage of funds has become a big obstacle for the growth of SMEs. Chinese researchers have made attempts to study the financing of SMEs from multiple aspects. Relatively speaking, many opinions of Chinese researchers are consistent with those of Western researchers. But the findings of Chinese researchers are closer to the reality of China and the corresponding research emphasizes more on the research of the influential factors of the external financing capacity of SMEs in practical economic activities (Sun, Vinig & Hosman, 2017). Through related literature review, the related Chinese studies are mainly conducted from the aspects of enterprises themselves, financial institutions, bank-enterprise relationship and the external environment.

##### **➤ Enterprise own problems and SME financing**

The own problems of SMEs have been well discussed by researchers in China. With the quantitative analysis of Chinese A-share listed companies, Wu et al (2018) find out that SMEs in China feature in small scale, limited negotiable securities, uncertain future income and information asymmetry and they are confronted with severe external financing constraints, which make it hard for them to get enough funds from traditional

financial institutions such as banks. In addition, as found by Wu et al (2018), given that risk investment is not sensitive to corporate scale and guarantees, it would be a good option for SMEs for funding.

However, different from the research of Wu et al (2018), in the research of Tsai (2017), and Lu (2018), corporate scale has been regarded as the primary enterprise own problem. As verified by Tsai (2017), the differences in financing constraints among enterprises with different scales mainly originate from size discrimination in the process of financing. That is to say, due to the relatively small scale, SMEs suffer from size discrimination in the process of financing, which would make it harder for them to collect funds compared with large enterprises. As further explained by Lu (2018), corporate scale could exert important impact on financing; that is because that commercial banks are to make profits and the basic requirement for bank loans is the safety, liquidity and profitability of the funds; however, SMEs are usually small in size and poor in assets and eligible collaterals and they could hardly meet up with the demands of banks for prudent operation, which would directly restrict the bank loans to SMEs.

#### ➤ Bank scale and SME financing

Beside the scale of enterprises, the scale of banks would also exert impact on the SME financing. Through the empirical research, Ma, Xue & Yang (2019) detect that small and medium-sized banks are the main providers of the capitals of SMEs and SMEs are more inclined to apply for loans from small and medium-sized banks, which is further supported by Shang, Ma & Wang (2020). As empirically found out by Shang, Ma & Wang (2020), as the market share of the Chinese small and medium-sized banks grows, the credit differences between large enterprises and SMEs would be narrowed, which illustrates that the growth of small and medium-sized banks are conducive for the relief of the financing dilemma of SMEs. However, as further discussed by Shang, Ma & Wang (2020), in China, given that folk capitals could hardly be invested via formal financial

channels, the private lending market has been formed, which may exert negative impact on the long-term development of SMEs.

➤ Bank-enterprise relationship and SME financing

The advantageous impact of bank-enterprise relationship on SME financing has been detected in current research in China. Wang, Lin & Luo (2019) start from the bank lending techniques and use investment cash flow models to empirically study whether the close bank-enterprise relationship could truly improve the financing constraints confronted by SMEs in China. Finally, Wang, Lin & Luo (2019) come to the conclusion that bank-enterprise relationship could improve financing constraints. That finding is also supported by researchers such as Sun et al (2019). Even, as detected by Sun et al (2019), good bank-enterprise relationship could significantly improve the capacity of listed private SMEs to get short-term borrowings.

➤ Policy environment and SME financing

In the aspect of policy environment, different researchers are with different findings. Wang & Yang (2016) find out that the intervention of the government to the financial market has resulted in the strong financial repression in China, which has greatly influenced the financing capacity of Chinese SMEs. Differently, Liu et al (2019) think that in the financing of SMEs, beside the effect from the degree of financial marketization, the administrative act of the government would also affect SME financing. As they empirically detected, in regions with better external policy environment, the financing cost of the local SMEs would be lower; otherwise, the cost would be higher. Besides, Jiang, Dong & Du (2018) also find out that monetary policy would also influence the financing capacity of SMEs and the moderately tight credit policy would inhibit the bank financing capacity of SMEs.

### **2.4.3 Summary**

In general, after the review of Western literatures and Chinese literatures, it could be noticed that in the existing literatures, the influential factors of the financing capacity of SMEs have been studied to some extent. But the influential factors detected in the Western context and the Chinese context are different, which is associated with the different conditions of different nations. However, the gaps in the existing Chinese literatures could be detected. On one hand, relatively speaking, due to the short history of the Chinese capital market, the related studies in China are mainly based on the Western studies, which make it necessary to enrich the Chinese studies with further research. On the other hand, even though great attempts have been made across the world, the systematic research to comprehensively probe into the influential factors of financing capacity of SMEs is limited. Hence, this research is to aim at the SME board listed companies in China to empirically verify the influential factors of financing capacity of Chinese SMEs and also to propose ways to improve the financing capacity of SMEs in China.

### **2.5 Hypotheses**

Corporate financing includes both the internal financing and external financing. As discussed above, internal financing is to raise capitals from the internal accumulation of surpluses within enterprises, while external financing is to collect funds from the outside of the enterprises directly or via the intermediary. The external financing could be further categorized into debt financing and equity financing. Relatively speaking, the threshold of equity financing for SMEs is in a relatively high level. Hence, in this research, SMEs is limited in debt financing in the angle of external financing. Therefore, it could be predicted that if a SME is with good external financing, then corporate debt level would be high; but if the internal financing capacity of a SME is strong, then the reliance of the enterprise on external financing would decrease and the corresponding debt level would also decrease. Consequently, through the comprehensive consideration of the factors discussed above, in this section, the hypotheses are proposed in the angle of external

financing capacity and that of internal financing capacity.

### **2.5.1 Influential Factors of External Financing Capacity of SMEs**

From the perspective of the external financing capacity, the influential factors are proposed as below to be studied in line with the existing studies across the world.

#### **➤ Enterprise scale**

Seen from the discussion Section 2.4, it has been widely recognized that corporate scale could exert certain effects on the financing capacity of SMEs. An enterprise with large scale is inclined with high internal management level and good financial system; in addition, given that large enterprises are better in information symmetry, large enterprises are with lower operating risk compared with SMEs (Drover et al, 2017; Lennox, Wang & Wu, 2018; Liu, Wang & Sun, 2019). Hence, it would be easier for large enterprises to collect funds from financial institutions. Hence, the hypothesis is proposed as below:

**H1:** Enterprise scale is positively correlated with the debt level of SMEs of Jiangsu Province of China.

#### **➤ Bank-enterprise relationship**

As argued above, good bank-enterprise relationship could significantly improve the capacity of listed private SMEs to get short-term borrowings. That may be because that if enterprises could keep good cooperation relationship with the banks, the understanding of the banks about the information of enterprises could be deepened (Krysiak, 2016; Hakimi, 2018). In that way, the problem of information asymmetry could be relieved and the loan limit of banks for enterprises could be increased. Hence, the second hypothesis is formed as below:

**H2:** Bank-enterprise relationship is positively correlated with the debt level of SMEs of Jiangsu Province of China.



➤ Growth Ability

Corporate growth ability is important for the measurement of whether enterprises are with long-term sustainable development potential or not (Quartey et al, 2017). As a comprehensive indicator, growth ability could measure the performance of enterprises from multiple aspects including assets, sales and profits. As widely recognized, enterprises with good growth ability are more likely to obtain better investment and to convey good information to obtain loans from banks (Hulsink & Scholten, 2017). Hence, the third hypothesis is proposed as below:

**H3:** Corporate growth ability is positively correlated with the debt level of SMEs of Jiangsu Province of China.

➤ Corporate mortgage capacity

Given the existence of severe information asymmetry, SMEs are required to offer adequate collaterals to banks for credit financing. The higher the value of the collaterals given for the bank is, the more powerful the mortgage capacity of the enterprise would be and the lower the operating risk banks would be (Ashford & Kantarelis, 2016; Owuor, Githii & Mwangi, 2018). Hence, it could be predicted that corporate mortgage capacity could directly affect the corporate financing capacity. Therefore, the hypothesis is generated as below:

**H4:** Corporate mortgage capacity is positively correlated with the debt level of SMEs of Jiangsu Province of China.

## **2.5.2 Influential Factors of Internal Financing Capacity of SMEs**

As to the influential factors of internal financing capacity, as discussed above, the related studies are relatively limited. Hence, in this section, considering the unique context of China, the influential factors of internal financing capacity of SMEs are studied from the aspects of profitability, risk control capacity and internal accumulation level.

➤ Profitability

On the grounds of the pecking order theory, enterprises usually take internal financing as the top choice to realize the minimization of financing cost, followed by debt financing and equity financing (Boadi et al, 2017). Hence, in line with that theory, enterprises with strong profitability are inclined to be with large retained income and large capitals from internal financing, as well as the low debt level (Atseye, Mboto & Lawal, 2020). Hence, the fifth hypothesis is proposed as below:

**H5:** The profitability of SMEs of Jiangsu Province of China is negatively correlated with their debt level.

➤ Internal accumulation level

Corporate internal accumulation mainly originates from unallocated profit and if the internal accumulation level of an enterprise is acceptable, the retained income of the company would high and the disposable capitals for the enterprise would be rich, which would reduce the reliance on external financing (Eisfeldt & Muir, 2016; Bilewicz, 2019). Hence, the sixth hypothesis is proposed as below:

**H6:** Internal accumulation level of SMEs of Jiangsu Province of China is negatively correlated with their debt level.

➤ Risk control capacity

Operating risk could be confronted by every enterprise. Generally speaking, operating risk could affect the financing risk and the higher the operating risk is, the higher the financing risk would be (Nanda & Rhodes-Kropf, 2017; Yang & Birge, 2018). Hence, the stronger the risk control capacity of an enterprise is, the higher the capital utilization would be and the more adequate working capital would be, which would lower the

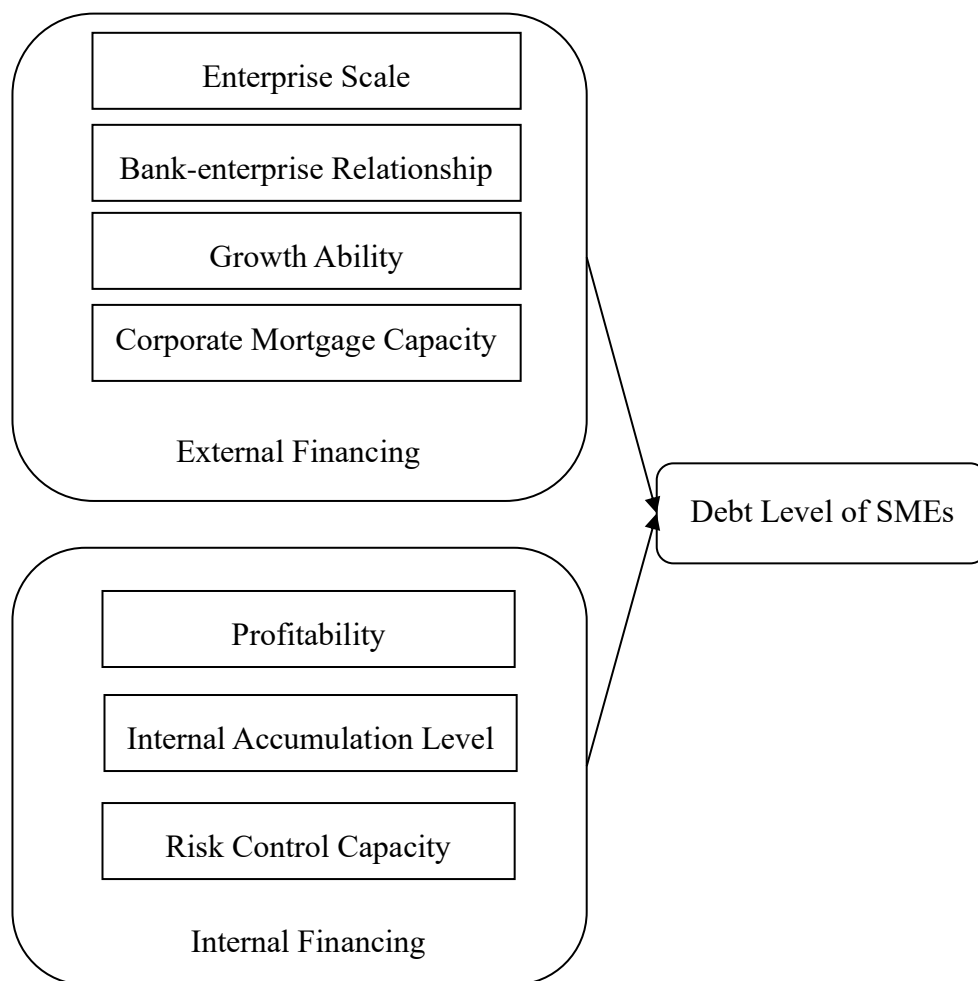
reliance on external financing. Hence, the seventh hypothesis is proposed as below

**H7:** Risk control capacity is negatively correlated with the debt level of SMEs of Jiangsu Province of China.

## 2.6 Conceptual Framework

Correspondingly, the conceptual framework is designed as below.

**Graph 2.2 Conceptual Framework of the Research**



## **Chapter 3 Methodology**

### **3.1 Introduction**

This is a chapter for the description and explanation of the methodology design to build up a solid methodological foundation. Specifically, in this chapter, what the research paradigm is as well as why the research paradigm is design are discussed. The design of the research paradigm could lay the methodological background. Also, the variables involved and the research model for analysis are proposed and designed. Subsequently, the sample data source and the way for data collection are elaborated. On the basis of the data collected, the data analysis methods are illustrated to set the basis for the following statistical analysis. Ultimately, ethical considerations are pointed out.

### **3.2 Research Paradigm**

The research paradigm could mainly be divided into three categories: positivism, interpretivism and critical theory. They are divided in the basic understandings about the natural world and the methods to understand the world and to study the world, as pointed out by Kumar (2019). To be specific, in accordance with positivism, the natural world exists objectively and the understanding of the natural world should be based on the analysis of the empirical facts; however, according to interpretivism, the world should be re-constructed via the subjective understandings of human beings and the understanding of the world by human beings is positive explanation and illustration, rather than passive perception and acceptance; as to critical theory, it criticizes positivism and the related methods of positivistic research and emphasizes the value participation of human beings in the construction of the world (Basias & Pollalis, 2018). When it comes to the research methods, the three are also divided. Quantitative research methods are more emphasized in positivistic research; qualitative research methods are more emphasized in interpretive research; but in the research of critical theory, both methods are concentrated on (Pruzan, 2016).

This research is a positivistic one. That is to say, positivism is taken as the research paradigm. As discussed in Chapter Two above, the related studies in China are mainly based on the Western studies and the systematic research to comprehensively probe into the influential factors of financing capacity of Chinese SMEs is limited. As a result, the author follows the research procedures from the establishment of the research hypotheses with reference from the related studies and the testification of the hypotheses with empirical data collected from the Chinese context to the generation of conclusions which could be applied in the related studies. That conforms to the research logic of positivistic one. Hence, positivism is suitable to be employed as the paradigm of the research and the quantitative research methods are mainly to be adopted. As to the method of quantitative research method, the statistical analysis is to target at listed SMEs in Jiangsu Province, China to collect empirical data to illustrate the influential factors of financing capacity of those companies.

### **3.3 Design of Research Variables**

From the related literatures such as that of Mc Namara, Murro & O'Donohoe (2017) and that of Daskalakis, Balios & Dalla (2017), it could be seen that the asset-liability ratio has been taken and applied by a large quantity of researchers to study the capital structure of SMEs. Among the various indicators, the asset-liability ratio is an important indicator which could reflect the proportion of corporate liabilities to corporate assets and it could quantitatively measure the corporate solvency as well as the utilization of debt capitals (Matias & Serrasqueiro, 2017). Relatively speaking, a company with strong debt financing capacity is inclined to be with high asset-liability ratio (Huang, Boateng & Newman, 2016). Therefore, the author determines to use the asset-liability ratio in the measurement of the financing capacity of SMEs in China. Hence, the asset-liability ratio is selected as the explained variable with the computational formula below:

$$\text{Asset-liability ratio} = \text{Total liabilities} / \text{Total assets}$$

As to the explanatory variables, as discussed above, the author is to probe into the influential factors of the external financing capacity of SMEs in Jiangsu Province of China from the aspects of enterprise scale, bank-enterprise relationship, corporate mortgage capacity, profitability, internal accumulation level, and risk control capacity. Correspondingly, the measurement of those explanatory variables is designed as below:

**Table 3.1 Design of Explanatory Variables of the Research**

<b>Research Variable</b>	<b>Code of Variable</b>	<b>Measurement</b>	<b>Computational Formula</b>	<b>Reference</b>
Enterprise scale	ES	Logarithm of total assets	$\ln(\text{Total assets})$	Nagaya (2017); Quartey et al (2017)
Bank-enterprise relationship	BR	Years of corporate establishment	$\text{Year of financial report} - \text{Year of corporate establishment}$	Wang, Ding & Chiang (2018); Chen, Li & Zhang (2016)
Growth Ability	GA	Total assets growth rate	$\frac{(\text{Total assets at the end of the year} - \text{Total assets at the beginning of the year})}{\text{Total assets at the beginning of the year}}$	Ljungqvist, Zhang & Zuo (2017)
Corporate mortgage	CMC	Collateral value of assets	$\frac{(\text{Fixed assets} + \text{Inventory})}{\text{Total assets}}$	Grayson & Hodges (2017);

capacity			Total assets	Anginer et al (2017)
Profitability	P	Return on equity	Retained profits / Closing net assets	De Toni et al (2017); Epstein & Schor (2019)
Internal accumulation level	IAL	Share of undistributed profits	Undistributed profits / Total assets	Forés & Camisón (2016); Figueiredo (2017)
Risk control capacity	RCC	Current ratio	Current assets / Current liabilities	Habib & Hasan (2017); Ljungqvist, Zhang & Zuo (2017)

There are many measuring standards of enterprise scale and the logarithm of total assets has been widely taken as the measurement of enterprise scale, such as in the research of Nagaya (2017) and that of Quartey et al (2017). Hence, in this research, the logarithm of total assets is taken to measure enterprise scale.

Bank-enterprise relationship is a relatively complex indicator, but on the whole, the longer an enterprise has been set up, the closer its bank-enterprise relationship would be (Wang, Ding & Chiang, 2018). Hence, in this research, in order to make the research simple, the years of corporate establishment are used to evaluate the bank-enterprise relationship.

As to the corporate mortgage capacity, given that the fixed assets and inventories could be taken as the good forms of collaterals, the higher the proportion of the sum of fixed assets and inventories to the total assets is, the higher the collateral value of the assets would be (Anginer et al, 2017). Hence, in this research, the proportion of the sum of fixed assets and inventories to the total assets is taken as the indicator to measure the corporate mortgage capacity of SMEs.

When it comes to the measurement of corporate profitability, through the review of the related studies such as that of De Toni et al (2017), return on equity (ROE) is usually taken to measure corporate profitability. Hence, in this research, ROE is taken for the measurement of corporate profitability.

The internal accumulation of SMEs mainly comes from the undistributed profit of enterprises, as argued by Forés & Camisón (2016). However, the pure consideration of the absolute value of the undistributed profit is not scientific for enterprises in different scales. Hence, in this research, the proportion of the undistributed profit to the total assets is taken to measure the corporate internal accumulation level.

As to the risk control capacity, the stronger the debt paying ability of SMEs is, especially the short-term solvency, the stronger the risk control capacity of those enterprises would be and the lower the possibility of those enterprises trapped in financial distress would be (Ljungqvist, Zhang & Zuo, 2017). Consequently, in this research, the author adopts current ratio to measure the risk control capacity of SMEs in Jiangsu Province of China.



### 3.4 Design of Research Model

In 1988, Titman & Wessels (1988) takes the financing structure theories as the basis to study the influential factors of corporate financing from the eight aspects including enterprise scale, profitability, asset structure, industry type, growth ability, income stability, product uniqueness, and non-debt tax shield. A regression model is also set up by Titman & Wessels (1988). Later, on the basis of the research and the model of Titman & Wessels (1988), many researchers across the world take the actual situation of their research and the characteristics of their research context into the account to have optimized analysis through the addition or elimination of the variables designed in the research of Titman & Wessels (1998). For example, Gwatidzo, Ntuli & Mlilo (2016) put forward the indicators from the perspective of macro economy; Ramli & Nartea (2016) put forward the indicators from the perspective of corporate governance. In this research, the author takes reference from the main research attempts made in the context of China and sets up a multivariate regression model to empirically analyze the influential factors of the external financing capacity of small and medium-sized enterprises in Jiangsu Province of China. The multivariate regression model is set up as below:

$$ALR = \alpha + \beta_1 ES + \beta_2 BR + \beta_3 GA + \beta_4 CMC + \beta_5 P + \beta_6 IAL + \beta_7 RCC + \varepsilon$$

where ALR refers to the explained variable of asset-liability ratio;

$\alpha$  refers to the constant term;

$\beta_i$  refers to the regression coefficients of the explanatory variables;

ES, BR, GA, CMC, P, IAL and RCC refer to the explanatory variables including the enterprise scale, bank-enterprise relationship, growth ability, corporate mortgage capacity, profitability, internal accumulation level, and risk control capacity respectively;

$\varepsilon$  refers to the stochastic error term.

### **3.5 Data Collection**

Altogether, there are more than one hundred of companies from Jiangsu Province of China listed on the SME board of China. The reason why listed companies are targeted at in the research is that to have access to the real and complete financial data of non-listed companies is difficult, while listed companies with public financial data could be easily accessed and the authenticity and reliability of the corresponding data could be well ensured. In addition, the financial information released by listed companies is all audited by audit institutions such as accounting firms. In that way, the integrity, reliability and continuity of the financial data of listed companies could be ensured. Furthermore, companies listed on the SME board of China could be regarded as the representatives within industries and the research of those companies could be taken as reference for other SMEs in China. As a consequence, in this research, companies from Jiangsu Province of China listed on the SME board of China are targeted at in the research.

However, not all the companies from Jiangsu Province of China listed on the SME board of China could be taken as the sample companies in the research. The following companies are not taken as the sample ones. First of all, those companies in the financial and insurance industries are eliminated, given the unique operation characteristics of those companies. Second, those companies under special treatment are eliminated, since the abnormal financial data would lead to the bias in the final conclusions; third, those companies with incomplete data or missing data should also be eliminated.

As to the research period, the financial data of the sample companies from 2016 to 2018 are to be collected. That is because that the research energy and time of the author is limited and the author is not allowed to have analysis of extensive sample data; but if the sample data could not be too limited, since the analysis effectiveness should still be guaranteed. Hence, in this research, the author takes three years from 2016 to 2018 as the research period.

When it comes to the sources of data, all the secondary sample data are directly collected from the public database of CMSAR. After the collection of the sample data, the data would be carefully reviewed and screened for further analysis.

### **3.6 Data Analysis Methods**

The data analysis methods involved in this research include descriptive statistical analysis, correlation analysis and regression analysis and each data analysis method is with its unique function. To be specific, in this research, the descriptive statistical analysis is applied to have a brief review of the industrial distribution of the sample companies and to have a general review of the distribution characteristics of the research variables. Indicators such as minimum value, maximum value, mean value, standard deviation, etc. are all adopted. Through the descriptive statistical analysis, the distribution characteristics of the research variables could be manifested and the general financing situation and operating situation of SMEs in Jiangsu Province of China could be revealed.

After the descriptive statistical analysis, further empirical analysis should be carried, which include the correlation analysis and the regression analysis. Correlation analysis is to have a grasp of the general correlation relationship among the variables with the method of Pearson correlation (Little & Rubin, 2019). It could be regarded as a process to describe the degree of closeness of the mutual relationships among the variables and to use appropriate statistical indicators to present the degree of closeness. The degree of closeness is shown by the correlation coefficient of  $r$  and the value of  $r$  is between -1 and 1. The closer the absolute value of  $r$  is to 1, the stronger the correlation degree of the variables would be; and the closer the absolute value of  $r$  is to 0, the weaker the correlation degree would be (Bain, 2017).

Furthermore, regression analysis is made by the author to verify the accurate casual

relationship among the variables. To be specific, regression analysis is a statistical analysis method to determine the quantitative mutual dependency relationships among two or more variables (Little & Rubin, 2019). According to the number of variables involved, regression analysis could be divided into univariate regression and multivariate regression; according to the number of dependent variables, regression analysis could be divided into simple regression and multiple regression analysis; and in line with the categories of the relationship between the explanatory variables and the explained variables, regression analysis could be divided into linear regression analysis and non-linear regression analysis (Bain, 2017). In line with the above standards, in this research, multivariate regression and linear regression analysis is to be carried out. Through the statistical analysis in the research, the influential factors of the external financing capacity of small and medium-sized enterprises in Jiangsu Province of China could be testified.

### **3.7 Ethical Considerations**

Given that secondary data are mainly collected for data analysis, the main ethical considerations relating to the research could be manifested in the following two aspects. On one aspect, the author is committed to ensure data quality. Seen from Section 3.5, in the data collection and screening process, the author is required to be careful to ensure the accuracy and quality of the sample data before further analysis. Especially, in the process of data screening, the author has to carefully eliminate those unqualified sample data to leave only qualified data. Any mistakes in the sample data would result in the bias in the final findings. Hence, in the process of data collection and data screening, the author should examine the data for several times after elimination and should cross-validate the sample data before further statistical analysis. On the other aspect, sample data storage is also an important ethical issue which could not be neglected. Any loss or missing of the sample data would add to the workload of the author or even make the author fail to fulfill the dissertation in time. As a consequence, in the research process, the author takes measures for data storage and those measures contain the establishment of a unique document for storage, the establishment of a backup document in case of any contingency

and the setting of a password of those documents to allow the access of the author only to the data. Besides, issues such as plagiarism should also been well handled by the author. Any plagiarism act would be severely punished by the school and the author should be carefully not to copy directly from the opinions in the existing achievements. Any reference from the existing achievements should be clearly cited with the sources of the reference.

## **Chapter 4 Findings and Discussion**

### **4.1 Introduction**

The empirical analysis of the influential factors of the financing capacity of SMEs in Jiangsu Province of China is made with findings summarized and discussed in this chapter. Founded on the literature analysis in the second chapter and the multivariate regression model built up in the third chapter, the research hypotheses are examined and discussed to testify whether those hypotheses could be accepted or not. Through the empirical analysis, supplements could be made to the existing theories to some extent.

### **4.2 Descriptive Statistical Analysis**

Through the careful screening, the author final obtains a data group of eighty sample companies. Given that data from 2016 to 2018 are collected, 240 data sets are collected as the panel data. All the sample companies cover more than twenty industries and the results via the analysis with SPSS about the industrial distribution are presented as below. As could be seen, those companies could be widely founded in multiple industries in China, but companies from the manufacturing industry take the majority, which is associated with that manufacturing companies occupy the main position in Chinese listed companies.

**Table 4.1 Industrial Distribution of Samples**

No.	Industry	Number of Sample	Percentage (%)
1	Textile industry	2	2.50
2	Wood processing and wood, bamboo, rattan, palm and grass products industry	1	1.25
3	Manufacture of raw chemical materials and chemical products	6	7.50
4	Pharmaceutical industry	4	5.00
5	Rubber and plastic products industry	3	3.75
6	Manufacture of non-metallic mineral products	3	3.75
7	Smelting and pressing of ferrous metals	2	2.50
8	Smelting and pressing of non-ferrous metals	5	6.25
9	Manufacture of metal products	8	10.00
10	Manufacture of general machinery	8	10.00
11	Special equipment manufacturing	3	3.75
12	Automobile industry	2	2.50
13	Manufacture of electrical machinery and equipment	7	8.75
14	Computer, communications and other electronic equipment manufacturing	11	13.75
15	Power, heat and supply industry	1	1.25
16	Building decoration and other construction industry	2	2.50

17	Wholesale trade industry	3	3.75
18	Water transport industry	2	2.50
19	Loading and unloading and other transportation agents	1	1.25
20	Internet and related service industry	1	1.25
21	Real estate industry	1	1.25
22	Commercial service industry	1	1.25
23	Health care industry	1	1.25
24	Radio, television, film and television recording industry	2	2.50
Sum		80	100.00

Then, the descriptive statistical analysis of the sample data in 2016, 2017 and 2018 respectively is presented as below.

**Table 4.2 Descriptive Statistics of Sample Data in 2016**

	N	Min	Max	Mean	SD
Asset-liability ratio	80	0.0782	0.7937	0.3726	0.1827
Logarithm of total assets	80	20.3928	23.9192	21.9045	0.7899
Years of corporate establishment	80	7.0000	28.0000	16.2931	4.8273
Total assets growth rate	80	-0.1772	8.3872	0.4462	1.0293
Collateral value of assets	80	0.0141	0.6928	0.3471	0.1478
Return on equity	80	-0.1627	0.2519	0.0803	0.0648
Share of undistributed	80	0.0098	0.4627	0.1699	0.0932



profits					
Current ratio	80	0.4928	9.5283	2.4582	1.9283

**Table 4.3 Descriptive Statistics of Sample Data in 2017**

	N	Min	Max	Mean	SD
Asset-liability ratio	80	0.0637	0.8271	0.3827	0.1928
Logarithm of total assets	80	20.4321	24.0291	22.2037	0.8039
Years of corporate establishment	80	8.0000	29.0000	17.2283	4.5042
Total assets growth rate	80	-0.0382	3.3041	0.3392	0.4726
Collateral value of assets	80	0.0133	0.6402	0.3443	0.1512
Return on equity	80	-0.2412	0.3938	0.0829	0.0728
Share of undistributed profits	80	-0.0239	0.3829	0.1592	0.0922
Current ratio	80	0.5429	9.4451	2.5261	2.0422

**Table 4.4 Descriptive Statistics of Sample Data in 2018**

	N	Min	Max	Mean	SD
Asset-liability ratio	80	0.0627	0.7526	0.3893	0.1877
Logarithm of total assets	80	20.4736	24.2637	22.3910	0.8310
Years of corporate establishment	80	9.0000	30.0000	18.2273	4.5192

Total assets growth rate	80	-0.2941	2.1138	0.2039	0.3372
Collateral value of assets	80	0.0041	0.6719	0.3371	0.1471
Return on equity	80	-0.1271	0.3092	0.0762	0.0633
Share of undistributed profits	80	0.0051	0.4091	0.1582	0.0956
Current ratio	80	0.4361	10.6635	2.3398	1.7762

Seen from the results above, in the aspect of asset-liability ratio, the average in 2016 is 0.3726; that in 2017 is 0.38273 and that in 2018 is 0.389. The average value of asset-liability ratio of the sample companies from 2016 to 2018 is all lower than 0.5, which denotes that debt level of the sample SMEs in Jiangsu Province of China is relatively low. In addition, it could be seen that from 2016 to 2018, the average debt level of the sample SMEs kept relatively stable. That further indicates that the debt financing capacity of the sample SMEs in Jiangsu Province of China is relatively poor and the debt financing space of those companies could be further enlarged.

In the aspect of the logarithm of total assets, it could be noted that the logarithm of total assets from 2016 to 2018 is 21.9045, 22.2037 and 22.3910 respectively, which shows certain growth of the total assets in those three years. In addition, it could be noted that the maximum value of the logarithm of total assets is not largely divided from the corresponding minimum value, which further illustrates the little gaps among those sample companies in corporate asset size. As to the years of corporate establishment, it could be seen that those sample companies have been set up for about seven to thirty years and the average establishment years are about seventeen years. That denotes that most of the sample companies were established after 2000. Hence, the establishment history of those sample companies is not that long.

When it comes to the total assets growth rate, it could be noted that the maximum value is divided from the minimum value, which indicates the relatively high growth rate of some of the sample companies. In addition, from the aspect of the average value, it could be seen that the overall total assets growth rate is not that high. Even a certain downward tendency could be detected from 2016 to 2018. Those show the worsening development of the sample SMEs in Jiangsu Province of China in recent years.

In the aspect of the collateral value of assets, it could be seen that the minimum value of the collateral value of assets in 2018 is only 0.0041, which indicates that the assets which could be available as collaterals are very limited. Seen from the corresponding average value, it could be seen that the overall collateral value of assets of the sample companies is not high, which shows the poor mortgage capacity of the sample companies and the lack of available collaterals of the sample companies. That may affect the debt financing capacity of the sample companies to some extent.

Return on equity could reflect the capability for companies to obtain net profits with their equity capital. The minimum value of the return on equity of the sample companies from 2016 to 2018 is all negative and the average value in those three years is 0.0803, 0.0829 and 0.0762 respectively. That indicates that there are gaps among the sample companies in their return on equity. Some sample companies are good at the utilization of the equity capital for making profits, while some companies are poor or even make loss.

From the aspect of the share of undistributed profits, it could be seen that there is a certain gap between the maximum value and the minimum one of the sample companies. In 2017, the minimum value is even negative, which indicates that still some sample companies are with internal operating problems and their internal accumulation level is low. In

addition, it could be seen that the average level is not that high as a whole, which further indicates the generally poor accumulation level of the sample SMEs. As a consequence, their internal financing capacity would be affected.

As to the current ratio, it could reflect the short-term debt-paying capacity of the sample companies to some extent, which could be further used to judge the anti-risk capability of enterprises. From the tables above, it could be seen that there is certain gap among the sample companies in their current ratio. From the aspect of the average value, it could be seen that most of the sample companies are not with strong short-term debt-paying ability and their anti-risk capabilities are still relatively low. That would directly affect the financing capacity of the sample companies.

### 4.3 Correlation Analysis

In the empirical research process, the correlation analysis of the variables is an important process. In this research, before the further regression analysis, Pearson correlation analysis is made to have a review of the general correlation relationship and the corresponding significance level of the research variables. All the related sample data are substituted into the software of SPSS and the results of correlation analysis are shown in Table 4.5 below.

**Table 4.5 Results of Pearson Correlation Analysis**

	ALR	ES	GA	BR	CMC	P	IAL	RCC
ALR	1							
ES	.552**	1						

GA	.042	.082	1					
BR	.096	.083	-.122	1				
CMC	.228**	-.072	-.183**	.107	1			
P	.122	.081	.042	.036	-.216**	1		
IAL	-.536**	-.366**	-.183**	-.018	-.229**	.482**	1	
RCC	-.782**	-.342**	.019	-.072	-.387**	.003	.472**	1

\*\*Significant on 0.01 level (two-tailed)

\*Significant on 0.05 level (two-tailed)

As revealed above, the correlation coefficients among the explanatory variables are all in the very low level, which indicates that the explanatory variables are not strongly correlated with each other. Hence, there is no multicollinearity problem among the variables. That indicates the design of those explanatory variables is relatively rational. In addition, as to the relationship between the explanatory variables and the explained variable, it could be seen that the asset-liability ratio is significantly and positively correlated with the enterprise scale with the correlation coefficient of 0.552; the corporate mortgage capacity is significantly and positively correlated with the asset-liability ratio and the corresponding correlation coefficient is 0.228; the internal accumulation level, and risk control capacity are both significantly and negatively correlated with the asset-liability ratio and the corresponding correlation coefficients are 0.536 and 0.782 respectively. Other explanatory variables all show certain correlation relationship with the explained variable, while the significance level is not that high. In the following research, all the variables are introduced into the multivariate regression analysis.

#### 4.4 Regression Analysis

Before regression analysis, the independent variables contained in the regression model should be examined with the multicollinearity test to study whether the selected

explanatory variables are effective or there is multicollinearity problem among the variables. The variance inflation factor is used for the examination and the results are shown as below.

**Table 4.6 Analysis of VIF of the Research Variables**

Model	Collinearity Statistics		
	Tolerance	VIF	1/VIF
ES	0.732	1.352	0.7396
GA	0.882	1.129	0.8857
BR	0.952	1.029	0.9718
CMC	0.723	1.372	0.7289
P	0.615	1.631	0.6131
IAL	0.472	2.139	0.4675
RCC	0.585	1.716	0.5828
Dependent variable: ALR			

Seen from above, the maximum VIF of the explained variables is 2.139, which is far smaller than the critical value of 10. That indicates there is no multicollinearity among the explained variables. As a consequence, further regression analysis could be made. Subsequently, the goodness of fit of the model is examined.  $R^2$  is used to represent the goodness of fit of the model and the value of  $R^2$  is usually between 0 and 1. The larger  $R^2$  is, the higher level of goodness of fit would be. Generally speaking, if the value of  $R^2$  is larger than 0.6, then the goodness of fit of the model is relatively good. From the results shown in the table below, the  $R^2$  of the model is 0.750 and the adjusted  $R^2$  is 0.738, which are both larger than 0.6. Hence, it could be concluded that the model is with acceptable goodness of fit.

**Table 4.7 Model Goodness of Fit Examination**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE	DW
	.866 <sup>a</sup>	.750	.738	.098827	1.172

In the regression analysis, the method for significance testing is analysis of variance (ANOVA), which is also called as F test. In ANOVA, through the analysis of the data, the significant factors which affect a thing could be detected; the mutual relationships among the factors could be detected; and the optimal level to significantly affect the factors could be detected. In this research, the results of ANOVA are displayed as below. As revealed below, the value of F is 84.933 and the significance level is 0.000, which passes the significance test. Hence, it could be thought that the established regression model is with acceptable goodness of fit and the multivariate model is meaningful.

**Table 4.8 Results of ANOV**

Model	Quadratic Sum	df	Mean Square	F	Sig.
Regression	6.452	8	.807	84.933	.000
Residual	2.203	232	.010		
Sum	8.655	240			

Finally, the regression results of the model are presented as below. It could be noted that the variables of enterprise scale, profitability, internal accumulation level, and risk control capacity all pass the significance test of 0.05. Those insignificant variables are eliminated and those significant variables are finally introduced into the multivariate model as below:

$$ALR = -0.683 + 0.052 * ES + 0.742 * P - 0.703 * IAL - 0.054 * RCC$$

**Table 4.9 Results of Regression Analysis**

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	B	SE	Trial Version		
(Constant)	-.683	.203		-3.230	.001
ES	.052	.009	.242	6.219	.000
GA	-.013	.013	-.039	-1.052	.293
BR	.001	.001	.019	.463	.642
CMC	.015	.052	.012	.273	.783
P	.742	.121	.263	6.172	.000
IAL	-.703	.093	-.344	-7.103	.000
RCC	-.054	.003	-.513	-11.722	.000

In summary, only four variables containing enterprise scale, profitability, internal accumulation level, and risk control capacity all pass the significance test of the model. Among those variables, enterprise scale and profitability show positive correlation with the asset-liability ratio of sample companies, while internal accumulation level and risk control capacity show the negative correlation with the asset-liability ratio. The other four variables including bank-enterprise relationship, growth ability and corporate mortgage capacity fail to pass the significance test of the model. As a consequence, the following discussion is made as below:

- Influential factors of external financing capacity of SMEs in Jiangsu Province of China



- Enterprise scale

The empirical findings revealed above demonstrate the obvious influence of enterprise scale on the external financing capacity of SMEs in Jiangsu Province of China and the influence is verified to be positive. That suggests that companies with relatively large scale are able to get financed in an easier way, since companies with larger scale could convey more positive signals to banks and the diversified operation of large companies would be more beneficial for risk diversification. Therefore, compared with SMEs, large companies are more preferred by banks. That coincides with the designed hypothesis above. In consequence, H1 could be accepted. That finding matches the existing findings of Drover et al (2017), Lennox, Wang & Wu, (2018), and Liu, Wang & Sun (2019) who reveal that the larger the scale of an enterprise is, the higher the internal management level would be and the better the financial system would be; in addition, given that large enterprises are better in information symmetry, large enterprises are with lower operating risk compared with SMEs. Consequently, conclusion could be made that the finding in the research well conforms to the existing widely recognized findings.

- Corporate growth ability

The empirical findings revealed above demonstrate that the indicator of corporate growth ability fails to pass the model test, which denotes that corporate growth ability is not a significantly influential factor of corporate external financing capacity of SMEs in Jiangsu Province of China. That fails to coincide with the designed hypothesis above. In consequence, H2 could not be accepted. That finding is divided from the widely recognized findings of researchers such as Quartey et al (2017) and Hulsink & Scholten, (2017) who illustrate that growth ability could measure the performance of enterprises from multiple aspects including assets, sales and profits and enterprises with good growth ability are more likely to obtain better investment and to convey good information to obtain loans from banks. That may be related with

the following two causes. On the one hand, although the growth rate of total assets is an important aspect to measure the development of SMEs in China, the only reliance on that indicator for the measurement of corporate growth ability may introduce bias to the final conclusion. On the other hand, the indicator of the growth rate of total assets could be taken as the reflection of the asset growth situation of a company in a certain period of time, but corporate growth ability also emphasizes on the consideration of the sustainable development capacity of a company in the future, not only the asset expansion scale and speed in the past days. In summary, the failure of the indicator of corporate growth ability to pass the model test is chiefly associated with the design of the measurement of the indicator. Consequently, conclusion could be made that the finding in the research is divided from the existing widely recognized findings.

- Bank-enterprise relationship

The empirical findings revealed above demonstrate that the indicator of bank-enterprise relationship fails to pass the model test, which denotes that bank-enterprise relationship is not a significantly influential factor of corporate external financing capacity of SMEs in Jiangsu Province of China. That fails to coincide with the designed hypothesis above. In consequence, H3 could not be accepted. That finding is divided from the widely recognized findings of researchers such as Krysiak (2016) and Hakimi (2018) who discuss that good bank-enterprise relationship could significantly improve the capacity of listed private SMEs to get short-term borrowings, since if enterprises could keep good cooperation relationship with the banks, the understanding of the banks about the information of enterprises could be deepened. That may be attributed to the following causes. On one hand, bank-enterprise relationship could be manifested in multiple aspects and the only dependence on the indicator of the years of corporate establishment for the measurement is not that scientific. On the other, as disclosed in descriptive statistics in Section 4.2, the difference between the maximum value and the minimum value is

not that large, which reveals that the bank-enterprise relationship of the sample companies in Jiangsu Province of China is similar. Therefore, the overall bank-enterprise relationship of the sample companies is not that satisfying, which may have limited impact on the external financing capacity of those companies. Consequently, conclusion could be made that the finding in the research is divided from the existing widely recognized findings.

- Corporate mortgage capacity

The empirical findings revealed above demonstrate that the indicator of corporate mortgage capacity fails to pass the model test, which denotes that corporate mortgage capacity is not a significantly influential factor of corporate external financing capacity of SMEs in Jiangsu Province of China. That fails to coincide with the designed hypothesis above. In consequence, H4 could not be accepted. That finding is divided from the widely recognized findings of researchers such as Ashford & Kantarelis (2016) and Owuor, Githii & Mwangi (2018) who discuss that given the existence of severe information asymmetry between SMEs and financial institutions such as banks, SMEs are required to offer adequate collaterals to banks for credit financing; and the higher the value of the collaterals provided to the bank is, the stronger the mortgage capacity of the enterprise would be and the lower the operating risk banks would be. The difference between the findings in this research and those in existing studies may be attributed to the overall low level of the sample SMEs in Jiangsu Province of China. According to the descriptive statistics in Section 4.2, the average value of the collateral value of assets of the sample companies is lower than 0.4. That denotes that the overall collateral value of assets of the sample companies is not high and the mortgage capacity of the sample companies is poor, due to the lack of available collaterals of the sample companies. Given the overall low level of collateral value of assets, its impact on the external financing capacity of the sample SMEs in Jiangsu Province of China may be limited. Consequently, conclusion could

be made that the finding in the research is divided from the existing widely recognized findings.

➤ Influential factors of internal financing capacity of SMEs in Jiangsu Province of China

● Profitability

The empirical findings revealed above demonstrate the obviously significant influence of corporate profitability on the financing capacity of SMEs in Jiangsu Province of China. However, the influence is verified to be positive, which is opposite to the theoretical hypothesis. That suggests that companies with good profitability are more willing to make full use of the effects of financial leverage to obtain more funds from external financing to make the better corporate development possible. Also, given their strong profitability, they are with relatively strong ability to repay capital with interest, since they are with abundant profits to pay interests, which make them attractive to banks. Therefore, those SMEs in Jiangsu Province of China with acceptable profitability are more inclined to utilize their strong profitability to borrow more from banks to support their long-term development. That is associated with the unique development phases of those SMEs in China. In the growth phase of development, efforts are usually made by enterprises to enlarge their corporate scale. That fails to coincide with the designed hypothesis above. In consequence, H5 could not be accepted. That finding also fails to match the existing findings of Boadi et al (2017) and Atseye, Mboto & Lawal (2020) who reveal that according to the pecking order theory, in order to realize the minimization of financing cost, enterprises usually take internal financing as the first choice, followed by debt financing and equity financing; the stronger the profitability of an enterprise is, the larger the retained income of the enterprise would be and the larger the capitals from internal financing would be achieved; and the lower the debt level of the

enterprise would be. Consequently, conclusion could be made that the finding in the research is divided from the existing widely recognized findings.

- Internal accumulation level

The empirical findings revealed above demonstrate the obvious influence of internal accumulation level on the financing capacity of SMEs in Jiangsu Province of China and the influence is verified to be negative. That suggests that the higher the corporate internal accumulation level of the sample SMEs is, the higher the retained income level would be and the more the disposable capitals owned by the sample companies would be. In that way, the internal financing capacity would be increased and the reliance on the external financing would be decreased. That coincides with the designed hypothesis above. In consequence, H6 could be accepted. That finding also matches the existing findings of Eisfeldt & Muir (2016) and Bilewicz (2019) who disclose that corporate internal accumulation mainly originates from undistributed profit and if the internal accumulation level of an enterprise reaches a high level, the retained income of the company would high and the disposable capitals for the enterprise would be rich, which would reduce the reliance on external financing. Consequently, conclusion could be made that the finding in the research well conforms to the existing widely recognized findings.

- Risk control capacity

The empirical findings revealed above demonstrate the obvious influence of risk control capacity on the financing capacity of SMEs in Jiangsu Province of China and the influence is verified to be negative. That suggests that the risk control capacity of the sample SMEs could have significant impact on corporate financing capacity and the impact is negative. That could be explained from the following two aspects. On one hand, although those companies with relatively strong risk control capacity are inclined to be with strong internal management level and solvency, due to

information asymmetry, banks could hardly obtain effective data to judge the risk control capacity of the companies. In that way, companies with strong risk control capacity may not be able to get enough credit support. On the other, those companies with strong risk control capacity are usually with strong short-term debt-paying ability, which means abundant own funds of those companies. In that way, their internal financing capacity would also be strong. Hence, compared with those with poor risk control capacity, those with strong risk control capacity are inclined to rely more on their internal financing. That coincides with the designed hypothesis above. In consequence, H7 could be accepted. That finding also matches the existing findings of Nanda & Rhodes-Kropf (2017) and Yang & Birge (2018) who disclose that operating risk could affect the financing risk and the higher the operating risk is, the higher the financing risk would be; the stronger the risk control capacity of an enterprise is, the higher the capital utilization would be and the more adequate working capital would be, which would reduce the reliance on external financing. Consequently, conclusion could be made that the finding in the research well conforms to the existing widely recognized findings.

The above research findings could enrich the current studies in China and could also offer practical suggestions for Chinese SMEs. At the micro level, for SMEs in China, efforts could be made from the above influential factors to better cultivate themselves to make balance between risk control and profit maximization. At the macro level, for financial institutions like banks, when providing credit facilities, those factors could be well considered; also, for agencies and the government, how to better support SMEs in external financing could be better considered. All in all, the empirical findings of this dissertation could offer scientific and effective breakthroughs for SMEs in Jiangsu Province of China in improving their financing capacity and could also provide the way of thinking as to how to solve the financing distress of SMEs in Jiangsu Province of China. However, on account of the potential limitations of the research, especially those in the design of the indicator measurement, further in-depth research is still necessary to better

illustrate the influential factors of the financing capacity of listed SMEs in Jiangsu Province of China.

#### 4.5 Summary of Test Results of Hypotheses

With the empirical analysis and discussion above, the results of hypothesis test could be clearly revealed and those results are summarized as below.

**Table 4.10 Summary of Test Results of Hypotheses**

<b>Hypothesis</b>	<b>Test Results</b>
<b>H1:</b> Enterprise scale is positively correlated with the debt level of SMEs of Jiangsu Province of China.	Accepted
<b>H2:</b> Bank-enterprise relationship is positively correlated with the debt level of SMEs of Jiangsu Province of China.	Rejected
<b>H3:</b> Corporate growth ability is positively correlated with the debt level of SMEs of Jiangsu Province of China.	Rejected
<b>H4:</b> Corporate mortgage capacity is positively correlated with the debt level of SMEs of Jiangsu Province of China.	Rejected
<b>H5:</b> Profitability is negatively correlated with the debt level of SMEs of Jiangsu Province of China.	Rejected
<b>H6:</b> Internal accumulation level is negatively correlated with the debt level of SMEs of Jiangsu Province of China.	Accepted
<b>H7:</b> Risk control capacity is negatively correlated with the debt level of SMEs of Jiangsu Province of China.	Accepted

## **Chapter 5 Conclusion**

### **5.1 Conclusion**

This positivistic study is to empirically explore the influential factors of the internal and external financing capacity of SMEs in Jiangsu Province of China. Through the statistical analysis with the software of SPSS, the author comes to the following conclusions.

In the aspect of the influential factors of external financing capacity of SMEs in Jiangsu Province of China, the factor of enterprise scale is detected to be able to exercise significant and positive influence on the external financing capacity of SMEs in Jiangsu Province of China. That suggests that companies with relatively large scale are able to get financed in an easier way, since companies with larger scale could convey more positive signals to banks and the diversified operation of large companies would be more beneficial for risk diversification. Therefore, compared with SMEs, large companies are more preferred by banks. The factor of corporate growth ability is detected to be without significant influence on corporate external financing capacity of sample companies. That may be related with the only reliance on that indicator for the measurement of corporate growth ability with the growth rate of total assets which could not well show the sustainable development of companies. The factor of bank-enterprise relationship is also detected to be without significant influence on the corporate external financing capacity of sample companies. That may be attributed to the limitation in the design of the indicator of the years of corporate establishment for the measurement and overall poor bank-enterprise relationship of the sample companies. In addition, the factor of corporate mortgage capacity also fails to pass the model test, which may be attributed to the overall low level of the sample SMEs in Jiangsu Province of China. To sum up, the findings of the research about the influence of the factor of enterprise scale well coincide with the current achievements, but the findings about the other three factors including bank-enterprise relationship, corporate growth ability and corporate mortgage capacity



are all biased from the existing achievements. That is mainly due to the limitations in the design of the research variables. In the research, the author is with limited time and energy and only limited indicators are designed for the measurement. That may result in the biased findings.

In the aspect of the influential factors of internal financing capacity of SMEs in Jiangsu Province of China, it is demonstrated that the factor of profitability could have significant and positive impact on the debt level, which suggests that companies with good profitability are more willing to make full use of the effects of financial leverage to obtain more funds from external financing to make the better corporate development possible, which is divided from the pecking order theory of financing. That may be related with that those SMEs in China are mainly in the growth phase in which scale enlargement and development is an important target. But the factors of internal accumulation level and risk control capacity are verified to be influential factors of internal financing capacity of the sample companies. As detected, the higher the corporate internal accumulation level of the sample SMEs is, the higher the retained income level would be and the more the disposable capitals owned by the sample companies would be; and the risk control capacity of the sample SMEs could have significant impact on corporate financing capacity and the impact is negative. Compared with those with poor internal accumulation and poor risk control capacity, those with rich internal accumulation and strong risk control capacity are inclined to rely more on their internal financing. The findings relating to the factors of internal accumulation level and risk control capacity well coincide with the existing achievements. However, the findings about the factor of profitability are divided from the pecking order theory of financing, which may be because of the unique development stage of SMEs of China.

## **5.2 Suggestions for the Improvement of the Financing Capacity of SMEs**

In order to fulfill the third objective to make suggestions as to how to improve the external financing capacity of SMEs in Jiangsu Province of China in line with the

findings completed in this research, the following suggestions are made. The enhancement of the financing capacity of SMEs in China could not happen at once. Rather, it is a comprehensive systematic project. It does not only rely on the construction of the corporate system by SMEs, but also depends on the cooperation among the government, financial institutions such as banks and agencies.

On one hand, in the micro level, it is crucial for SMEs in China to constantly make efforts to improve their own corporate financing capability. First of all, enterprises should improve their development capacity. As verified above, the corporate scale could have significant influence on corporate financing capacity of SMEs in Jiangsu Province of China. That reveals the importance of the expansion of corporate scale. Especially, for those SMEs which are mainly in the growth phase of development, it is vital to never stop growing and never stop enhancing the corporate core competitiveness to constantly maintain rigorous development power. Second, to improve the internal financing capacity is also important for SMEs in China. As revealed above, the three influential factors of internal financing capacity all pass the significance test, which implies that profitability, internal accumulation level and risk control capacity could all have large impact on the financing capacity of SMEs. The acceptable accumulation level and the effective risk control could help SMEs to better improve their internal financing capacity, which could promote their overall financing capacity. Third, for SMEs, efforts could be made to improve their financial management. From the discussion above, information asymmetry could have tremendous impact on the external financing of SMEs. To enhance corporate financial system construction and to perfect financial management system would be beneficial for SMEs to better solve the problem of information asymmetry in the financing process.

On the other hand, in the macro level, it is first suggested that a unique financial service system for SMEs could be set up. Bank loans are the main external financing channel for

SMEs. However, since it is hard for SMEs to get loans from big banks, it is vital to develop small and medium banks to better serve for SMEs in China. Also, other financial institutions funded by private capital could also be supported by the government to offer more financing channels for SMEs. In addition, innovative equity transaction markets could be developed to offer more equity financing opportunities for SMEs. Second, the credit guarantee system of SMEs could be perfected. The system could be set up supported by the government and the financial support from the government could be taken as the basis to guide banks and guarantee institutions to set up a risk sharing and benefit sharing system. Also, a credit information sharing for SMEs is also suggested to be set up to help better solve the information asymmetry problem of SMEs. Third, it is suggested that the related laws and regulations should be further perfected to improve the policy support for SMEs in corporate financing. In recent years, Internet financing has been fast developed and it has gradually become a new way of financing for SMEs. However, due the rapid development of the related laws and regulations in the field of Internet finance, the reliance on the Internet for financing by SMEs is still with certain policy risks. Under that circumstance, it is urgent for the Chinese government to speed up the legislation in the Internet finance field to better support the fast growth of SMEs in China.

### **5.3 Limitations and Suggestions for Further Research**

Through the overview of the whole dissertation process, the limitations of the research are as below. First, only limited number of variables is taken for analysis. There are many influential factors for the financing capacity of SMEs. But in this research, only seven variables are taken into analysis, which is far from enough. In the future, deeper analysis would be made through the discussion of more related factors to have more comprehensive findings. Second, the indicators designed for the measurement of variables are limited. In this research, many variables such as the bank-enterprise relationship could not be simply measured with one quantitative indicator. Rather, it is associated with both qualitative indicators and quantitative indicators. In order to simplify the research design and considering the data accessibility, only limited number

of quantitative indicators is utilized. That would greatly affect the effectiveness and the persuasiveness of the final conclusions. In the future, it is suggested by the author that in order to make the final conclusions more effective, more indicators could be adopted to improve the measurement of those complicated variables. Third, in this research, only GEM board listed companies in Jiangsu Province of China are taken for analysis. However, whether the findings obtained in Jiangsu Province could still be applied in other regions of China should be well questioned. Jiangsu Province of China is with its unique background. As a developed province of China, it features in good economic conditions and fast development potentials. Whether the experience from such context would be still applicable in other less developed regions of China should be further studied. In the future, the research scope could be further expanded and enlarged. Last but not least, in this research, control variables such as those factors in the macro level have not been well considered. In the future, control variables could be designed and studied to improve the reliability of the multivariate regression model and the effectiveness of the research conclusions.

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## **Appendices**

### **Appendix A – Literature Review**

Industry	Indicator	Large	Medium	Small	Micro
Agriculture, animal husbandry and fishery industry	Operating income (ten thousand yuan)	$\geq 20000$	$20000 > x \geq 500$	$500 > x \geq 50$	$< 50$
Industrial engineering	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 40000$	$40000 > x \geq 2000$	$2000 > x \geq 300$	$< 300$
Construction industry	Operating income (ten thousand yuan)	$\geq 80000$	$80000 > x \geq 6000$	$6000 > x \geq 300$	$< 300$
	Total assets (ten thousand yuan)	$\geq 80000$	$80000 > x \geq 5000$	$5000 > x \geq 300$	$< 300$
Wholesale trade industry	Employee (number of people)	$\geq 200$	$200 > x \geq 20$	$20 > x \geq 5$	$< 5$
	Operating income (ten thousand yuan)	$\geq 40000$	$40000 > x \geq 5000$	$5000 > x \geq 1000$	$< 1000$
Retail industry	Employee (number of people)	$\geq 300$	$300 > x \geq 50$	$50 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 20000$	$20000 > x \geq 500$	$500 > x \geq 100$	$< 100$
Transportation industry	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 30000$	$30000 > x \geq 3000$	$3000 > x \geq 200$	$< 200$
Warehousing industry	Employee (number of people)	$\geq 200$	$200 > x \geq 100$	$100 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 30000$	$30000 > x \geq 1000$	$1000 > x \geq 200$	$< 200$
Post industry	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 20$	$< 20$
	Operating income (ten thousand yuan)	$\geq 30000$	$30000 > x \geq 2000$	$2000 > x \geq 100$	$< 100$
Hotel industry	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 2000$	$2000 > x \geq 100$	$< 100$
	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
Catering industry	Operating income (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 2000$	$2000 > x \geq 100$	$< 100$
Information transmission industry	Employee (number of people)	$\geq 20000$	$2000 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 100000$	$100000 > x \geq 1000$	$1000 > x \geq 100$	$< 100$
Software and information service industry	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Operating income (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 1000$	$1000 > x \geq 50$	$< 50$
Real estate industry	Operating income (ten thousand yuan)	$\geq 200000$	$200000 > x \geq 1000$	$1000 > x \geq 100$	$< 100$
	Total assets (ten thousand yuan)	$\geq 10000$	$10000 > x \geq 5000$	$5000 > x \geq 2000$	$< 2000$
Property management industry	Employee (number of people)	$\geq 1000$	$1000 > x \geq 300$	$300 > x \geq 100$	$< 100$
	Operating income (ten thousand yuan)	$\geq 5000$	$5000 > x \geq 1000$	$1000 > x \geq 500$	$< 500$
Leasing and business service industry	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$
	Total assets (ten thousand yuan)	$\geq 120000$	$120000 > x \geq 8000$	$8000 > x \geq 100$	$< 100$
Other industries	Employee (number of people)	$\geq 300$	$300 > x \geq 100$	$100 > x \geq 10$	$< 10$

**Graph 2.1 Classification Standards of SMEs in China**

(Source: Zhou, 2016)

## Appendix B – Literature Review

**Graph 2.2 Conceptual Framework of the Research**

